



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-1005; Directorate Identifier 2012-NE-27-AD]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney Canada Corp Turboshaft Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Pratt & Whitney Canada Corp. (P&WC) PT6C-67C turboshaft engines. This proposed AD was prompted by five reported incidents of second stage power turbine (PT) disk damage.

This proposed AD would require initial and repetitive borescope inspections to verify the presence of a retaining ring securing the PT baffle located near the second stage PT disk.

If the engine fails the inspection, this proposed AD would also require removing the engine from service before further flight. We are proposing this AD to prevent damage to the PT disk which, if undetected, could cause uncontained PT disk failure and loss of control of the helicopter.

DATES: We must receive comments on this proposed AD by [insert date 60 days after date of publication in the FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- Fax: 202-493-2251.

For service information identified in this proposed AD, contact Pratt & Whitney Canada Corp., 1000 Marie-Victorin, Longueuil, Quebec, Canada, J4G 1A1; phone 800-268-8000; fax 450-647-2888; Web site: www.pwc.ca. You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (phone: 800-647-5527) is the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New

England Executive Park, Burlington, MA 01803; e-mail: james.lawrence@faa.gov;
phone: 781-238-7176; fax: 781-238-7199.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-1005; Directorate Identifier 2012-NE-27-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

Discussion

The Transport Canada, which is the aviation authority for Canada, has issued Canada AD CF-2012-24, dated August 2, 2012 (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

There have been 5 reported incidents of second stage Power Turbine (PT) disk damage caused by the PT baffle moving and contacting the downstream side of the second stage PT disk. In two of these incidents, the PT section of the engine failed to rotate (on ground) as a result of baffle interference.

An investigation has determined that the root cause for the PT baffle displacement and the resultant PT disk damage was due to the failure of the retaining ring that holds the PT baffle in its intended position.

This proposed AD would only apply to P&WC PT6C-67C turboshaft engines that have not had P&WC Service Bulletin No. PT6C-72-41056 incorporated. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

P&WC has issued Alert Service Bulletin (SB) No. PT6C-72-A41060, Revision 2, dated February 10, 2012. P&WC has also issued SB No. PT6C-72-41056, Revision 4, dated February 13, 2012. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of Canada, and is approved for operation in the United States. Pursuant to our bilateral agreement with Canada, they have notified us of the unsafe condition described in the MCAI and service information referenced above. We are issuing this proposed AD because we evaluated all information provided by Canada and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

This proposed AD would require initial and repetitive borescope inspections to verify the presence of a retaining ring securing the PT baffle located near the second

stage PT disk. If the engine fails the inspection, this proposed AD would also require removing the engine from service before further flight.

Differences Between This Proposed AD and the MCAI

This proposed AD would not require engine modification at the next scheduled overhaul, as the MCAI requires. This proposed AD would require different inspection intervals from the MCAI. We changed the inspection intervals to ensure that our proposed AD is clear for U.S. operators.

Costs of Compliance

We estimate that this proposed AD would affect about 220 engines installed on helicopters of U.S. registry. We also estimate that it would take about six hours per engine to perform one inspection required by this proposed AD. The average labor rate is \$85 per hour. We anticipate that two engines would fail the initial inspection. Required parts would cost about \$224,636 per engine. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$561,472. Our cost estimate is exclusive of possible warranty coverage.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by

prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:

Pratt & Whitney Canada Corp. (formerly Pratt & Whitney Canada Inc.): Docket No. FAA-2012-1005; Directorate Identifier 2012-NE-27-AD.

(a) Comments Due Date

We must receive comments by [insert date 60 days after date of publication in the FEDERAL REGISTER].

(b) Affected Airworthiness Directives (ADs)

None.

(c) Applicability

This AD applies to Pratt & Whitney Canada Corp. (P&WC) PT6C-67C turboshaft engines that have not had P&WC Service Bulletin No. PT6C-72-41056 incorporated.

(d) Reason

This AD was prompted by five reported incidents of second stage power turbine (PT) disk damage. We are issuing this AD to prevent damage to the PT disk which, if undetected, could cause uncontained PT disk failure and loss of control of the helicopter.

(e) Actions and Compliance

Unless already done, do the following actions.

(f) Borescope Inspections

(1) Borescope-inspect to verify the presence of a retaining ring securing the PT baffle located near the second stage PT disk, as follows:

(i) For engines with 2,200 PT cycles or more on the effective date of this AD, inspect within 100 operating hours or 150 PT cycles, whichever occurs first.

(ii) For engines with more than 1,400 PT cycles but fewer than 2,200 PT cycles on the effective date of this AD, inspect within 250 operating hours, 350 PT cycles, or before exceeding 2,350 PT cycles, whichever occurs first.

(iii) For engines with 1,400 PT cycles or fewer on the effective date of this AD, inspect within 500 operating hours, 750 PT cycles, or before exceeding 1,750 PT cycles, whichever occurs first.

(2) Thereafter, repetitively borescope-inspect to verify the presence of the retaining ring securing the PT baffle located near the second stage PT disk, on or before an additional 600 flight hours or 900 PT cycles, whichever occurs first.

(3) Use P&WC Alert SB No. PT6C-72-A41060, Revision 2, dated February 10, 2012, paragraphs 3.A.(1) through 3.A.(6) to do the borescope inspections required by this AD.

(4) If the retaining ring is missing or the PT baffle is out of position; then remove the engine from service before further flight.

(g) Optional Terminating Action

Performing the engine improvement modifications in P&WC SB No. PT6C-72-41056, Revision 4, dated February 13, 2012, paragraphs 3.A. through 3.C.(12) and

3.E.(1) through 3.E.(15), is an optional terminating action to the repetitive inspections required by this AD.

(h) Credit for Actions Accomplished in Accordance with Previous Service Information

(1) If you performed the initial borescope inspection before the effective date of this AD using P&WC Special Instruction No. 45-2011R2, dated July 27, 2011, or P&WC Alert SB No. PT6C-72-A41060, dated August 12, 2011, or Revision 1, dated September 29, 2011, you met the requirements of paragraph (f)(1) of this AD.

(2) If you performed the engine modification in P&WC SB No. PT6C-72-41056, dated April 1, 2011, or Revision 1, dated June 17, 2011, or Revision 2, dated October 6, 2011, or Revision 3, dated February 3, 2012, you met the requirements of this AD and further action is not required.

(i) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(j) Related Information

(1) For more information about this AD, contact James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: james.lawrence@faa.gov; phone: 781-238-7176; fax: 781-238-7199.

(2) Refer to Transport Canada AD CF-2012-24, dated August 2, 2012, for related information.

(3) For service information identified in this AD, contact Pratt & Whitney Canada Corp., 1000 Marie-Victorin, Longueuil, Quebec, Canada, J4G 1A1; phone 800-268-8000; fax 450-647-2888; Web site: www.pwc.ca. You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on October 16, 2012.

Carlos Pestana,
Acting Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

[FR Doc. 2012-26277 Filed 10/24/2012 at 8:45 am; Publication Date: 10/25/2012]